



American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

July 6, 2007

RE: HandEra Inc. FCC ID: URZ-WF10020

After a review of the submitted information, I have a few comments on the above referenced Application.

1) FYI...Page 15 of the Users manual for the MODULE references section 5.3. It is unsure what section 5.3 is.

Response: This application is for the specific portable configuration presented in the SAR report (that is, no mobile or fixed use is requested at this time). Please disregard the RF exposure exhibit (2007132 HandEra Icon FCC Report APX A RFExpos R0.00.pdf) originally uploaded. Please see the revised user's manual exhibit uploaded with this response.

2) The users manual for the MODULE appears to suggest the module is approved for remote and base operations as well (subject to mobile RF requirements). This would seem reasonable and would be expected as well for most modular approved WLAN devices – especially since the RF exposure information provided these calculations as well. However the modular approval letter should adjust item 8 to mention mobile approval is also requested instead of stating it is NOT requested.

Response: Please see response to #1.

3) The users manual for the MODULE should also include information such as:

RF Exposure Statements That Must be Included in the Final Devices Users Manual for Devices Considered to be Mobile

For devices that fall into RF category Mobile (distance from user to device is 20 cm), the users manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

Additional Information That Must be Provided to OEM Integrators

The end user should NOT be provided any instructions on how to remove or install the modular TX device.

Response: Please see response to #1.

4) Previous comment 7 still stands. Correction of duty factor is allowed, but only for devices that can show a proper source-based time-average duty cycle. WLAN does not normally meet this. Please refer to the following explanation provided by Kwok Chan due to several studies they have already performed on WLAN. The particular information below is explaining acceptable crest factors for SAR, but the same applies to duty factors for EMC.

Unless the duty factor applied can be shown to be source based (controlled by software or firmware parameters not accessible to the user – not volume of traffic, etc.) then WLAN must assume 100%. Note that all readings but 1 appear to meet without a duty factor, with 2 other close frequencies. Additionally the 2 that are of concern may simply be a dynamic range measurement issue given the frequency of measurement.

Response: There was no duty cycle correction applied to the data. The duty cycle references were inadvertently included due to an error in the report template. This can be confirmed by looking at the difference between the peak and average values and seeing that they vary and are not a consistent -6.6. Please see the revised test report uploaded with this response.

5) FCC expects output power of sample utilized for SAR testing to be 0 to +0.5 dB higher than the sample used for testing. Currently the SAR report still shows much lower power than the EMC sample (nearly 2 dB). Please review and retest if necessary.

Response: Conducted power levels could not be measured at the SAR lab, therefore free-space power measurements were performed prior to the SAR evaluations in order to report reference power levels. Alternately, Rhein Tech Labs also measured the average conducted output power levels at the same time they measured the peak conducted power levels listed in the EMC report prior to the SAR evaluations (see the average conducted power table from Rhein Tech below). Therefore, the average conducted power levels can be applied to the unit evaluated for SAR. Average conducted power levels are applied based on the FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters (Oct. '06 Rev. 1.1). Please see attached revised SAR test report from the SAR lab referencing the average conducted power levels measured prior to the SAR evaluations.

Average Power (dBm) Measured at RTL

Rate (Mbps)	1	2	5.5	11
Low	17.4	17.3	17.7	17.5
Mid	17.2			
High	17.1			

6) There still appears to be confusion about the frequencies of measurements for SAR. It appears the data tables show 2412 MHz, while all the plots show 2450 MHz. Please explain/correct as necessary.

Response: SAR test procedures were followed using FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters (Oct. '06 Rev. 1.1), specific reference to page 6 "When the extrapolated maximum peak SAR for the maximum output channel is less than or equal to 1.6 W/kg and the 1-g averaged SAR is less than or equal to 0.8 W/kg, testing of other channels in the 'default test channels' or 'required test channels' configuration is optional." Based on the average conducted power levels measured prior to the SAR evaluations, the maximum output channel was Channel 1 (2412 MHz). The SAR evaluations were performed at the lowest data rate and the worst-case configurations were also evaluated at the 5.5 Mbps data rate, which was 0.29 dB > than the lowest data rate (average conducted power). Please see attached revised SAR test report from the SAR lab referencing the "FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters (Oct. '06 Rev. 1.1)".

7) Spacings in the manual mention 1 cm, while test report mentions 2.5 and 3.5 cm spacings. Testing must correspond to actual usage and the information in the manual match what was tested.

Response: I believe the confusion is with the 2.5 mm and 3.5 mm references on page 20 of the SAR report. These are different headset (HS) options as opposed to EUT-to-body spacing. Minimum SAR spacing is 1.2 cm. Please see the revised user's manual uploaded with this response.

8) Users manual mentions 2 different holsters, but SAR report mentions only one. Each type of holster containing metal must be tested. Information presented in test report must match users manual.

Response: Only one holster is approved for use (2600-00087). Please see the revised users manual uploaded with this response.

9) SAR values reported in the users manual do not appear to match test report. Please review/correct.

Response: Please see the revised users manual exhibit uploaded with this response.

Timothy R. Johnson
Examining Engineer

A handwritten signature in black ink, appearing to read 'Timothy R. Johnson', is positioned above the email address.

[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@AmericanTCB.com)

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.